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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,626	03/13/2001	Mingjing Li	MS1-725US	3014

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EXAMINER

THAI, HANH B

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 06/02/2003

2

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/805,626

Applicant(s)

LI ET AL.

Examiner

Hanh B Thai

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

This is in response to an application filed March 13, 2001 in which claims 1-54 are presented for examination.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

Claim 40 is rejected under 35 U.S.C. 102(e) as being anticipated by Marchisio (U. S. Patent no. 6,510,406).

Regarding claim 40, Marchisio discloses a system comprising:

- a crawler module (24, Fig 2) coupled to access a media content source and collect a plurality of media content pieces and associated text from the media

Art Unit: 2171

content source (see col. 8, lines 38-44, Marchisio); please note that “crawler module” corresponds to “search module” (24, Fig. 2, Marchisio).

- a feature extraction module (21, Fig2) coupled to extract one or more text features from one of the media content pieces (see col. 8, lines 46-49, Marchisio); and
- a media content indexing module (20, Fig.2) coupled to generate a text feature vector, based on the extracted one or more text features, corresponding to the one media content piece (see col.8, lines 50-56, Marchisio).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-39 and 41-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Hoffert et al. (U. S. Patent no. 6,282,549).

Regarding claims 1, 41 and 48-50, Marchisio discloses one or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform the following acts:

- receiving search criteria (see col. 5, lines 8-11 and col. 7, lines 27-34, Marchisio);

Art Unit: 2171

- generating a query vector based on text features of the search criteria (see col. 5, lines 11-17 and col.7, lines 35-39, Marchisio);
- identifying media content pieces (see col. 7, lines 30-34) to be rendered by comparing the query vector to text feature vectors associated with a plurality of media content pieces (see col. 7, lines 30-34; col. 8, lines 7-10; col. 18, lines 54-61; col.19, lines 10-13 and Fig. 12, Marchisio). Please note that the “digitized speech” corresponds to “media content”;
- receiving user feedback regarding the relevancy of the identified media content pieces (see col. 16, lines 57-59 and Col. 19, lines 4-8, Marchisio);
- modifying the query vector based on the user feedback (see col.7, lines 55-65, Marchisio);
- modifying one or more of the text feature vectors (see feature 27, Fig.3 and col. 14, lines 25-31, Marchisio).
- identifying new media content pieces (see col. 7, lines 30-34; 27, Fig. 3).

Marchisio, however, does not explicitly disclose “the text feature vectors associated with the plurality of media content pieces”. Hoffert, on the other hand, discloses these limitations (see col. 2, line 65 to col. 3, line 12; col. 3, line 65 to col. 4, line 8 and lines 55-57, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchsio to include the text feature associated with media content in the document object as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not otherwise be able to (see col. 2, lines 24-27, Hoffert).

Regarding claims 2 and 29, Marchisio/Hoffert combination further discloses generating another query vector based on one or more low-level features of the search criteria (see col. 17, lines 8-21, Marchisio); and wherein the identifying comprises, comparing the query vector to text feature vectors associated with the plurality of media content pieces to generate first results, comparing the other query vector to other low-level feature vectors associated with the plurality of media content pieces to generate second results, and combining, for one of the plurality of media content pieces, the first and second results corresponding to the one media content piece (see col. 17, lines 47-53 and Fig. 10, Marchisio).

Regarding claims 3-5, 30, 32 and 34, Marchisio/Hoffert combination further discloses the altering, based on the user feedback, a weighting of the results used in the combining (see col. 17, lines 44-66, Marchisio).

Regarding claims 6 and 35, Marchisio/Hoffert combination further discloses the search criteria comprise one or more words (see 5, Fig. 1, Marchisio).

Regarding claims 7, 23 and 36, Marchisio/Hoffert combination further discloses that the piece of media content comprises an image (see 101, Fig. 1, Hoffert).

Regarding claims 8, 24 and 37, Marchisio/Hoffert combination further discloses the piece of media content comprises a portion of audio content (see col. 8, lines 1-53 and 101, Fig. 1, Hoffert).

Regarding claims 9, 25 and 38 Marchisio/Hoffert combination further discloses the piece of media content comprises a portion of multimedia content (see col. 8, lines 1-53 and abstract of Hoffert).

Regarding claims 10 and 26, Marchisio discloses a method comprising:

- identifying a media content source (SEE Fig.3, Marchisio); the feature extraction module (21, Fig.3) extracts the media content from the content source as shown in Fig. 3 of Marchisio.
- collecting one or more pieces of media content and associated text from the media content source (see 39, Fig.3; col.9, lines 4-6 and col. 10, lines 8-10);
- extracting, for a piece of media content, one or more text features from the associated text (see 21, Fig3, Marchisio); and
- making the one or more text features available for searching (see col. 10, lines 32-39 and Fig.3, Marchisio).

Marchisio, however, does not explicitly disclose “the text feature vectors associated with the plurality of media content pieces”. Hoffert, on the other hand, discloses these limitations (see col. 2, line 65 to col. 3, line 12; col. 3, line 65 to col. 4, line 8 and lines 55-57, Hoffert). It would have been obvious to one of ordinary skill in the art at the time

Art Unit: 2171

of the invention to modify Marchisio to include the text feature associated with media content in the document object as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not otherwise be able to (see col. 2, lines 24-27, Hoffert).

Regarding claims 11-12, Marchisio/Hoffert combination further disclose generating one or more text feature vectors from the extracted one or more text features (see col. 7, lines 35-39 and 21, Fig. 3); and wherein the making comprises making the one or more text feature vectors available for searching (see Fig.3, Marchisio).

Regarding claim 13, Marchisio/Hoffert combination further disclose a method of collected piece of media content: classifying the image as meaningful or not meaningful; and wherein the extracting comprises extracting the one or more text features for the piece of media content only if the piece of media content is classified as meaningful (see col. 8, lines 11-19, Hoffert).

Regarding claim 14, Marchisio/Hoffert combination further disclose a plurality of web pages, each web page including a plurality of pieces of media content and text associated with one or more of the plurality of pieces of media content (col. 4, line 8 and lines 55-57, Hoffert).



Regarding claim 15, Marchisio/Hoffert combination further disclose a filename and the one or more text features comprises one or more words in the filename (see col. 6, line 22, Hoffert).

Regarding claim 16, Marchisio/Hoffert combination further disclose a uniform resource locator (URL) and the one or more text features comprises one or more words in the URL (see col. 6, lines 45-67, Hoffert).

Regarding claim 17, Marchisio/Hoffert combination further disclose that the associated text for a piece of media content comprises alternate text that can be displayed in place of the media content, and the one or more text features comprises one or more words of the alternate text (see col. 5, lines 30-34, Hoffert).

Regarding claim 18, Marchisio/Hoffert combination further disclose the associated text for a piece of media content comprises text surrounding the piece of media content on a web page, and the one or more text features comprises one or more words of the text surrounding the piece of media content (see col. 5, lines 62 to col. 6, lines 9, Hoffert) .

Regarding claim 19, Marchisio/Hoffert combination further disclose the associated text for a piece of media content comprises a title of a web page that includes the piece of media content, and the one or more text features comprises one or more words in the title (see col. 6, lines 19-22, Hoffert).

Art Unit: 2171

Regarding claim 20, Marchisio/Hoffert combination further disclose the associated text for a piece of media content comprises a link on a web page that includes the piece of media content, and the one or more text features comprises one or more words in the link (see col. 6, lines 15-21, Hoffert).

Regarding claim 21, Marchisio/Hoffert combination further disclose the associated text for a piece of media content comprises anchor text corresponding to the piece of media content, and the one or more text features comprises one or more words in the anchor text (see col. 7, lines 46-61, Hoffert).

Regarding claim 22, Marchisio/Hoffert combination further disclose the associated text for a piece of media content comprises an image annotation corresponding to the piece of media content, and the one or more text features comprises one or more words in the image annotation (see col. 7, lines 45-51, Hoffert).

Regarding claims 27-28 and 39, Marchisio discloses a method comprising:

- receiving search criteria (see col. 5, lines 8-11 and col. 7, lines 27-34, Marchisio);
- generating a query vector based on the search criteria (see col. 5, lines 11-17 and col. 7, lines 35-39, Marchisio);
- comparing the query vector to a feature vector corresponding to a piece of media content and having been generated based on text associated with the piece of media

Art Unit: 2171

content (see col. 7, lines 30-34; col. 8, lines 7-10; col. 18, lines 54-61; col. 19, lines 10-13 and Fig. 12, Marchisio). Please note that the “digitized speech” corresponds to “media content”; and

- determining, based at least in part on a result of the comparing, whether to render the piece of media content to a user (see col. 8, lines 33-36, Marchisio).

Marchisio, however, does not explicitly disclose “the text feature vectors associated with the plurality of media content pieces”. Hoffert, on the other hand, discloses these limitations (see col. 2, line 65 to col. 3, line 12; col. 3, line 65 to col. 4, line 8 and lines 55-57, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchisio to include the text feature associated with media content in the document object as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not otherwise be able to (see col. 2, lines 24-27, Hoffert).

Regarding claim 31, Marchisio/Hoffert combination further disclose distance between the other query vector see col. 5, lines 10-20, Hoffert).

Regarding claim 33, Marchisio/Hoffert combination further disclose the user space vector corresponding to a particular piece of media content to modify the feature vector corresponding to the particular piece of media content (see Fig. 3A, Hoffert).

Regarding claims 42-47, Marchisio discloses a method comprising:

Art Unit: 2171

- receiving search criteria (see col. 5, lines 8-11 and col. 7, lines 27-34, Marchisio);
- identifying, based at least in part on the search criteria, a piece of media content to be rendered (see col. 7, lines 30-34);
- receiving user feedback regarding the relevancy of the rendered piece of media content (see col. 16, lines 57-59 and Col. 19, lines 4-8, Marchisio);
- weighting for another piece of media content (see col. 17, lines 47-53, Marchisio), based on the user feedback, both a result of comparing the high-level query vector to a high-level feature vector of the other piece of media content and a result of comparing the low-level is query vector to a low-level feature vector of the other piece of media content (see col. 17, lines 14-21, Marchisio); and
- combining the weighted result to determine whether to identify the other 20 piece of media content for rendering (see col. 17, lines 54-66, Marchisio).

Marchisio, however, does not explicitly disclose “the text feature vectors associated with the plurality of media content pieces”. Hoffert, on the other hand, discloses these limitations (see col. 2, line 65 to col. 3, line 12; col. 3, line 65 to col. 4, line 8 and lines 55-57, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchsio to include the text feature associated with media content in the document object as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not otherwise be able to (see col. 2, lines 24-27, Hoffert).

Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Ma et al. (U. S. Patent no. 6,347,313).

Regarding claim 51, Marchisio discloses one or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform acts including:

- identifying a piece of media content to render to a user based at least in part on comparing a query vector corresponding to search criteria of the user and a feature vector corresponding to the piece of media content (see col. 7, lines 30-34; col. 8, lines 7-10; col. 18, lines 54-61; col. 19, lines 10-13 and Fig. 12, Marchisio). Please note that the “digitized speech” corresponds to “media content”;
- receiving user feedback regarding the relevancy of the piece of media content (see col. 16, lines 57-59 and Col. 19, lines 4-8, Marchisio);
- modifying the query vector based on the received user feedback (see col. 7, lines 55-65, Marchisio).

Marchisio, however, does not disclose “the received user feedback in an off line”. Ma, on the other hand, discloses the user feedback processing that is performed off-line (see col. 9, lines 21-41, Ma). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the user feedback in an off-line as taught by Ma. The motivation of doing so would have been to enable effective database searching based on the level semantic features (see col. 2, lines 18-20, Ma).

Regarding claims 52 and 53, Marchisio/Ma combination discloses all of the claimed subject matter. However, Marchisio's relevancy values reads on the claimed "confidence" value. Because the new query vector D is adjusted based on the relevancy value (in the same manner as is the claimed vector D adjusted on the confidence value), the Examiner takes the position that the claimed relationship (see formula claim 52) is in fact inherent in Marchisio. And for the formula in the claim 53 is basically a calculating the different between the value 1 and adjusted vector.

Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Ma et al. (U. S. Patent no. 6,347,313) and further view of Hoffert et al. (U. S. Patent no. 6,282,549).

Regarding claim 54, Marchisio/Ma combination discloses all of the claimed subject matter as discussed above, except Marchisio/Ma combination does not explicitly disclose audio content, visual content, and multimedia content. But it is well known to use the audio content, visual content, and multimedia content in computer-readable media system as evidence by Hoffert (see Fig. 1 and Abstract of Hoffert). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the audio content, visual content, and multimedia content as taught by Hoffert. The motivation of doing so would have been to enhance the search content.

Art Unit: 2171

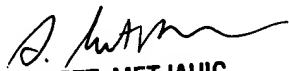
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B Thai whose telephone number is 703-305-4883. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9099 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Hanh Thai #1  
Art Unit 2171  
May 29, 2003

  
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